How Much Does Alberta Import From The U.S.?

May 4, 2017

Highlights:

International trade is one of the main drivers of the Alberta economy and the majority of Alberta's international trade takes place with the U.S. In this commentary we will examine how much merchandise Alberta imports from the U.S.

Alberta
Government

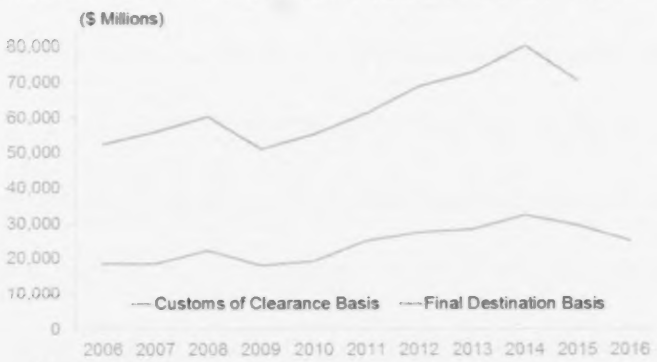
In this paper we will attempt to estimate Alberta's "true" merchandise imports from the U.S. Why do we need to estimate these imports when Statistics Canada publishes them on a regular basis? The problem with the official import statistics is that they only capture what gets cleared through Alberta border points rather than what is actually destined for Alberta.

Statistics Canada's International Accounts and Trade Division (IATD) publishes estimates for merchandise imports by province on a monthly basis. The IATD trade database suggests that the value of merchandise imports that clear customs in Alberta was $29.4 billion in 2015 and $25.1 billion in 2016[1]. According to this database Alberta accounted for only about 5% of total Canadian merchandise imports even though Alberta's share of Canadian GDP is 16%. The same database estimates Alberta merchandise imports from the U.S. at $19.7 billion and $16.4 billion, respectively. The U.S. accounts for roughly two-thirds of Alberta's merchandise imports according to the IATD database. However, these estimates are on a province of clearance basis rather than on a province of final destination basis. A large share of the imports that are ultimately destined for Alberta actually clears customs in other provinces. For instance, many of our "true" imports clear customs through Kingsgate in BC or in BC ports, and are then allocated to BC rather than to Alberta.

We have therefore attempted to re-estimate Alberta's "true" imports from the U.S. using a number of different sources. The first step is to examine total Alberta merchandise imports from all countries on a destination basis according to the provincial GDP tables (Chart 1). According to the provincial accounts[2] total international merchandise imports were $70.4 billion in 2015, a much higher estimate and a more realistic one than the above $29.4 billion according to the IATD. According to the provincial GDP table Alberta accounted for 12% of Canadian international imports of goods in 2015. However, no comparable estimates are available for imports from the U.S.

Alberta's Input-Output (I-O) tables provide a fairly detailed breakdown of international imports by industry, which feed into the above import estimates reported in the GDP table. Unfortunately, the latest available year is 2013 and no such detailed estimates are available for imports from the U.S. In 2013, Alberta imported $72.7 of merchandise from all countries combined.

Chart 1
Alberta's International Merchandise Imports
Province of Destination Basis vs Province of Customs Clearance Basis



Source: Statistics Canada

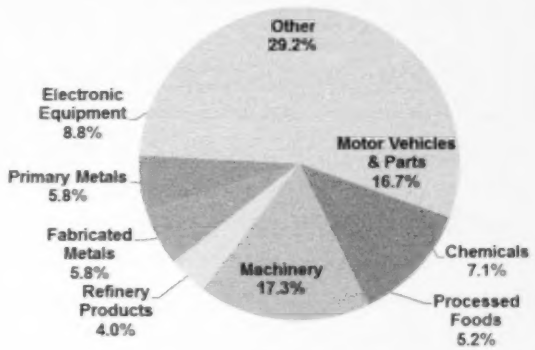
[1] Statistics Canada's Cansim table 228-0060
[2] Statistics Canada's Cansim table 384-0038

Alberta's largest import categories are (Chart 2):

- Machinery with imports of $12.5 billion in 2013;
- Motor vehicles and parts at $12.0 billion;
- Electronic equipment at $6.3 billion;
- Chemicals at $5.1 billion;
- Fabricated metals at $4.2 billion;
- Primary metals at $4.1 billion;
- Processed foods and beverages at $3.7 billion; and
- Refinery products at $2.9 billion.

Most of the imports of machinery, primary metals and fabricated metals go to Alberta's oil and gas sector.

Chart 2
Merchandise Imports from all Countries by Industry – 2013
($72.7 billion)



Sources: Statistics Canada and Alberta Economic Development and Trade

The toughest part is going from the above I-O based estimates for total international imports by industry for the years 2013 and prior to a similar dataset for Alberta imports from the U.S. Only the national Input-Output tables for the years 2012 and before have comparable estimates for Canadian imports from the U.S. Therefore, the starting point would be to apply the Canadian U.S. to total import shares for the years 2010 to 2012 and apply these to Alberta's estimates of imports by industry for the years 2010 to 2012. We realize that the resulting shares will often be too low for Alberta as Alberta is a land-locked province and therefore more dependent on trade with the U.S. than the coastal provinces. The resulting estimates will therefore somewhat under-state Alberta's actual imports from the U.S. At the Canadian level the U.S. accounts for about 60% of total Canadian merchandise imports.

In the next step we examine the Alberta/Canada import shares for the largest industries and make adjustments where we have other information. For example, according to the I-O database Alberta imported between $1.5 and $2 billion of oil and gas between 2010 and 2013, mostly gas and gas liquids. The Canadian I-O database from which we derived the U.S. import shares suggests that only about one-quarter of these imports come from the U.S. However, as Alberta is land-locked it is very likely that all of Alberta's imports of gas and gas liquids imports come from the U.S. and we have therefore changed the U.S. share to 100%. In some instances, we can substitute the Alberta shares from the ITD database for select industries if the ITD Alberta import estimates are fairly close to the I-O ones. Refinery product imports, such as gasoline, totaled at least $2 billion a year according to both databases, but the U.S. shares for Alberta are much higher and more realistic in the ITD database than those at the Canadian level in the I-O database. For automobiles and light-duty motor vehicles, one of Alberta and Canada's largest imports, we have raised the U.S. import shares for Alberta as the new motor vehicle sales survey suggests that the share of overseas vehicles sold in Alberta is much lower than in Canada.

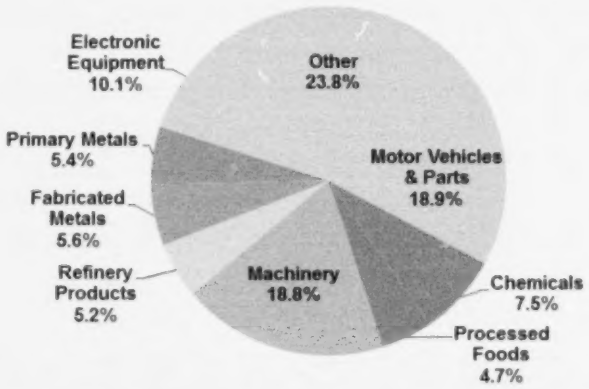
After making these adjustments we have estimated Alberta's imports of goods from the U.S. at $37.3 billion for 2010, $40.7 billion for 2011 and $46.0 billion for 2012. The U.S. share of total Alberta merchandise imports is about 68% in these three years, higher than the 60% share for Canadian merchandise imports.

We have extended the U.S. import estimates to 2013 using the 2013 estimates by industry from the I-O database for total Alberta imports and then applying either the average U.S. shares for the previous three years to the 2013 estimate or revising these historical industry shares based on other information similar to the above described methods. 2013 U.S. imports are estimated at $49.5 billion and the U.S. import share was roughly 69% that year.

Alberta's largest merchandise import categories are the same for the U.S. as for the world (Chart 3):

- Motor vehicles and parts with imports of $9.4 billion in 2013;
- Machinery at $9.0 billion;
- Electronic equipment at $5.0 billion;
- Chemicals at $3.7 billion;
- Fabricated metals at $2.8 billion;
- Primary metals at $2.7 billion;
- Refinery products at $2.6 billion; and
- Processed foods and beverages at $2.3 billion.

Chart 3
Merchandise Imports from the U.S. by Industry – 2013
($49.5 billion)



Source: Alberta Economic Development and Trade

In order to derive estimates for U.S. imports of merchandise for the years 2014 and 2015 we examined trends in imports (on a customs basis) and domestic demand for a number of our largest imports. Merchandise imports from the U.S. increased in 2014 as Alberta's economy was booming. For instance, Alberta invested $24.5 billion in machinery and equipment that year, up 18% from the previous year. Much of that machinery and equipment is imported, especially if it is used in the oil and gas sector. We have estimated that imports from the U.S. grew about 10% in 2014 to between $54 and $55 billion. This rate of increase is the same as the 10% increase in goods imports from all countries according to Alberta's GDP tables. In 2015, Alberta's economy was in recession and imports of goods from all countries declined 12% that year according to Statistics Canada. We have estimated a somewhat larger decline of 14% for goods imports from the U.S. to about $47 billion, in part because Alberta's oil and gas sector depends more heavily on imported inputs (such as machinery and equipment) from the U.S. than from the rest of the world.